#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014607

Address: 333 Burma Road **Date Inspected:** 29-May-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Li Yang **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes N/A No

34-0006 **Bridge No: Component:** OBG

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

#### **OBG** Assembly Yard

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member(s) is/are identified as 7DE+7EE, 8BE+8CE weld splice and 8BE+9AE hold back welds. The weld designations reviewed are as follows:

7DE+7EE

1. OBE7A-007~009

8BE+8CE

1. OBE8A-002~004

8BE+9AE

1. SP460-031, 032, 039, 040

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- 2. SP461-011, 012, 019, 020
- 3. SP541-062, 063
- 4. SP542-27, 28
- 5. SP581-035, 036
- 6. SP582-11, 12
- 7. SP621-31, 32
- 8. SP622-07, 08
- 8. SP344-25, 26
- 9. SP371-29, 30
- 10. SP372-11, 12
- 11. SP468-21, 22
- 12. SP469-23, 24
- 13. DP661-17, 18
- 14. DP662-11, 12
- 15. DP669-13, 14
- 16. DP670-07, 08
- 13. BP178-13, 14
- 14. BP177-25, 26
- 15. BP069-49, 50
- 16. BP070-13, 14
- 17. BP123-49, 50
- 18. EP088-13, 14
- 19. EP089-07, 08
- 20. EP096-12, 13
- 21. EP097-07, 08

#### 9AE+9BE

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 002 located at OBE9B cross beam side of segment. Welder is identified as Mr. Chen Zhenghua (220067). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 007 located at OBE9B bottom plate of segment. Welder is identified as Mr. Chen Zhenghua (22006). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

## 8BW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 29~42 located at SP487-001 cross beam side of segment. Welder is identified as Mr. Ge Tao (066765). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2112-FCM-1.

8CW

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Shield Metal Arc Welding (SMAW) welding was performed on weld joint 22~35 located at SP488-001 cross beam side of segment. Welder is identified as Mr. Ge Tao (066765). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2112-FCM-1.

8BW+8CW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 13 located at EP063-001 counter weight side of segment. Welder is identified as Mr. Ge Tao (066765). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2114-B-U2-FCM-1.

8AW + 8BW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 004 located at OBW8 cross beam side of segment. Welder is identified as Mr. Lu Xiaojie (067904). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and WR13064 procedure.

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 003 located at OBW8 deck plate splice of segment. Welder is identified as Mr. Hao Jianxiang (067665). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and WR13063 procedure.

8AW

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 005 located at CA047 counter weight side of segment. Welder is identified as Mr. Ji Yi (045268). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and WR13176 procedure.

Y Location of repairs areas by above noted welder (045268) is located at 450mm.

BK001-036

Flux Core Arc Welding (FCAW) welding was performed on weld joint 006 located at BK001-036 cross beam side of segment. Welder is identified as Mr. Li Shuqiang (053609). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2231-T.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer